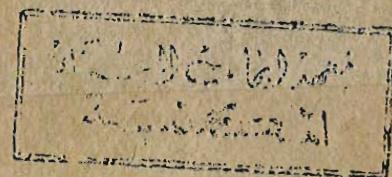


BUILDING RESEARCH CENTRE



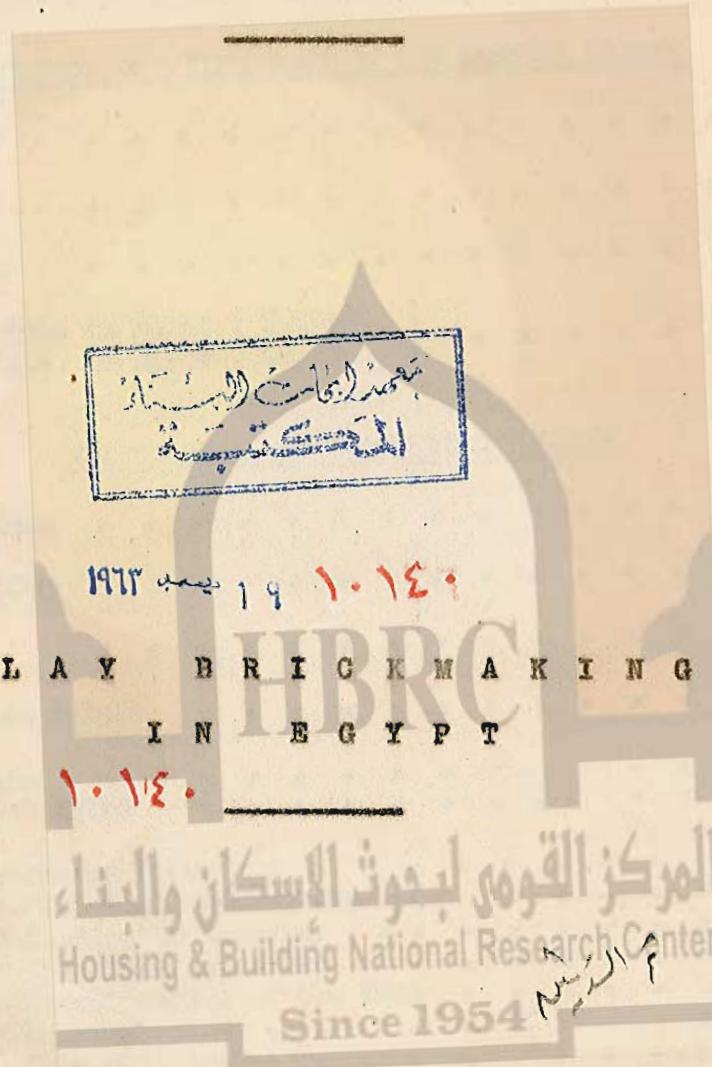
CLAY BRICKMAKING  
IN EGYPT



D.

28 B 18

BUILDING RESEARCH CENTRE



↓

D.

1 C 18

د. ٢ إ ١٥ سلسلة رقم

C O N T E N T S

	<u>Page</u>
FORWARD.....	1
 <u>CHAPTER I - INTRODUCTION AND GENERAL SURVEY</u> 	
General Survey . . . . .	2
Soil of Egypt . . . . .	3
History . . . . .	3
Climatic Conditions in Egypt { Table } . . . . .	5
Climatic Conditions in Egypt { Map } . . . . .	5
 <u>CHAPTER II - MANUFACTURE OF BRICKS</u> 	
Getting of the Clay . . . . .	7
Preparation of Clay . . . . .	8
Tempering . . . . .	9
Moulding of green Bricks . . . . .	10
Firing The Bricks . . . . .	11
A - Batch Kilns . . . . .	12
B - Continuous Kilns . . . . .	12
1-Method of working the kiln . . . . .	12
2-Setting or charging . . . . .	14
3-Drip feed apparatus . . . . .	14
4-Specification of the fuel . . . . .	15
5-Chimney . . . . .	15
6-Kiln performance . . . . .	16
 <u>CHAPTER III - TESTS CARRIED OUT ON CLAY AND BRICKS</u> 	
A - CLAY:	
1 - Mechanical Analysis . . . . .	17
2 - Determination of liquid,plastic and shrinkage limits	18

	<u>Page</u>
3 - Linear shrinkage . . . . .	18
4 - Chemical analysis of Clay . . . . .	19
<b>B - BRICKS:</b>	
1 - Compressive Strength . . . . .	20
2 - Water absorption . . . . .	21
3 - Measurement of linear drying and Firing Shrinkage . . . . .	21
 <u>CHAPTER IV → GENERAL DISCUSSION AND CONCLUSION</u>	
1 - Labour requirements . . . . .	22
Estimated labour requirements at clay brickworks	23
2 - Clay brickmaking plants, classified by process and productive capacity . . . . .	24
3 - Clay brickworks Using one or more continuous kilns of the Hoffman Type classified by aggregate Holding capacity of continuous kilns Used, Number of continuous kilns used and productive capacity of works . . . . .	25
4 - Expenses for 1000 bricks (plant production 8 million Bricks)	26
5 - Clay Brickmaking plants near Cairo ( Map and Table )	
6 - Annual Consumption of bricks in different Zones in Egypt (Map)	
7 - Annual Consumption of bricks per square kilometer in different Zones ( Map )	
8 - Annual consumption of bricks per person in different Zones ( Map )	
REFERENCES . . . . .	27